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ORGANISATION OF AGRARIAN TRANSACTIONS IN TRANSITIONAL ECONOMIES

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Key words: Agrarian transactions, transition economies

Abstract

Basic principles of the Transaction Cost Economics have been incorporated to the agrarian economy. Agrarian transactions have been put on the center of economic analysis. Critical dimensions of agricultural transactions have been determined. Structure of costs for alternative governance modes of transacting has been specified. Microeconomic factors for institutional development in transitional Bulgarian agriculture have been examined. Specific transitional agrarian structure has been determined by high level of asset specificity, big uncertainty and less frequency of transactions. Predominance of spot market transactions, big reliance on informal and interlinked transacting, great extend of integrated modes, part time farming and production cooperative phenomenon, block of credit and extension supply transactions, and strong necessity for third part involvement have been explained from transaction cost economizing perspectives. Effective boundaries of market and private organizations of agrarian transactions have been determined, and framework for Government intervention has been worked out.

Résumé

Les principes fondamentaux de l'économie des charges de transactions ont été incorporés à l'économie agricole. L'objet de l'analyse économique a été notamment ces transactions agricoles. Les facteurs critiques qui les déterminent y ont été définis aussi bien. La structure des charges liées aux différents modèles de gestion a été spécifiée. Les facteurs économiques du développement des institutions en Bulgarie dans la période de transition ont été examinés. La structure des transactions dans cette période se caractérise par la nature spécifique des investissements, l'incertitude des transactions elles mêmes et leur réalisation relativement rare. La prédominance des transactions de marché occasionnelles, l'organisation à la base de connaissances et liaisons informelles, les systèmes considérablement intégrés, le principe de travail aux fermes comme un engagement supplémentaire et l'énorme demande d'intervention des tiers - dans ce cas l'Etat, ont été expliqués du point de vue perspectives de réduction des charges de transaction. Les limites effectives de l'organisation des transaction agricoles et le cadre d'intervention de l'Etat sont aussi bien définis.

ORGANIZATION OF AGRARIAN TRANSACTIONS IN TRANSITIONAL ECONOMIES

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Introduction

There have been unprecedented changes in institutional structure of Eastern European agriculture since 1989. Different forms of ownership (private, organizational, public) have come to existence, and new kinds of property rights (on land, capital, intellectual products etc) have been involved in market transactions. The "rules of the game" have changed dramatically and market coordination of economic activity has been introduced. From takers of developed from bureaucracy (and dropped from above) plan, individuals have been turned in decision makers on their resources management. New kind of agents have been involved in all types of agrarian transactions (from capital supply to international trade) and number of economic partners of exchange increased thousands folds. Available continuum of alternative governance modes for organization of agrarian transactions has become broader - from spot market, through short and long term contracts, to unified organizations of different type. All this development has changed structure and intensity of agrarian transactions in society, and altered both potential of transactions and costs for their organization.

Restructuring of economic relationships in transitional agriculture has been connected with low market experience of agents, and high entrepreneurial rents, and weak contract enforcement system. It has brought into existence specific for transitional conditions forms for organization of transactions such as predominance of cash and carry deals, and big reliance of personal but market relations. Character of costs for carry out transactions has changed considerably: bureaucratic costs for developing and implementation of the Central plan have given way to costs for negotiating, and for contract writing and enforcing.

Transforming of the former ownership structure has been only partly through market channels and quite a big part of accumulated resources has been distributing though nonmarket mechanisms. Special for transformation conditions forms for privatization of agrarian assets (e.g. Liquidation Councils) have been existing for a long time as forms for organization of agrarian transactions as well. New kind of transaction costs associated with identification and transferring of property rights has come to existence.

In transitional conditions market has failed to organize considerable part of capital supply, extension supply, some part of input supply and marketing transactions in agriculture. This has made necessary substantial third part involvement in agrarian transactions through Government interventions, and foreign assistance programs etc. Transitional institutional structure of the Eastern European agriculture has been quite different from the initial scenario of perfect working markets. Some social unrest has risen and push to ineffective forms of Government intervention (export ban, market control) or favoring single forms for organization of agrarian transactions (production cooperatives).

The Transaction Cost Economics overcomes the old fashion "market versus organization" approach, and considers market and hierarchy as alternative forms for organization of transacting. It replaces the Neoclassical presumption about "costliness" of economic relationships and put the transaction as the basic unit of economic analysis. Transaction Cost Economics studies efficiency of alternative forms for organization of transactions (price mechanisms, and private and public arrangements) in comparative transacting cost minimizing way. It gives answers why there are so many organizations with different type and size in market based agrarian economy, and why farmers groups, cooperatives, joint ventures, alliances etc exist in transitional agriculture. This concept does not view market failure for (some) agrarian transaction as absolute because other

governance organizations can substitute it. Structure of activities in agrarian area is defined by prices in the market but also by two way negotiations between partners, by arbitration through a third party or by authority in a hierarchy. When all types of economic organizations in private sector do not work there is need for public intervention if benefits outweigh the costs for its organization.

Much of social costs during transformation of the Eastern European agricultures have transaction origin. The Transaction Cost Economics prospective allows us to examine driving microeconomic factors for organizational modernization and to determine boundaries of available coordinating structures for transacting. In this way we can predict which agrarian transactions will be organized by free market, which of them will be vertically integrated through various contractual and organizational devices, and where market and private initiative would fail. Thereby we will design appropriate agrarian policy for Governmental regulations, Government support, and (or) direct public involvements in agrarian transactions.

The goal of this paper is to incorporate basic principles of the Transaction Costs Economics to the agrarian sphere of transitional economy and to examine structures for organization of transactions in Bulgarian agriculture. It is not an easy job to apply the Transaction Costs Economics principles to transitional agriculture. Firstly, this new developing concept has not been completely implemented to agrarian sphere; second, traditional accounting data are not suitable for analysis of transaction economizing and much of official statistical data are not reliable; third, most of organizational forms have not get to their mature stage in new environment and spectrum of factors for their development is not readily observable; and forth, there have been many non economic factors for the institutional innovations and interdisciplinary approach should be undertaken. Our intention has been to reexamine factors for institutional development in transitional agriculture, to determine potential and prospects of different organizations for agrarian transacting, and ultimately to put public policy and business strategy formation in more realistic fundament.

Transaction Cost Economics of Agrarian Economy

Advantages of specialization of labor and exchange of its products have been well known for more than 200 years. Importance of "indivisible hand of market" in coordinating of economic activities has been among fundamentals of the modern political economy. What has been a new insight in recent development of economic theory is the idea that "there is costs of using the price mechanism". As Coase formulated it in 1937 "if production is regulated by price movement, production could be carried out without any organization, well might we ask: Why is there any organizations?" (Coase 1937, p.19). Would not it be possible all transactions and coordination between factors of production to be carried out by market? Why are there organizations for joint production, purchasing inputs, marketing, processing, innovation? Why do farmers groups, cooperatives, joint ventures, firms, corporations, strategic alliances, and other contractual arrangements exist in agriculture? Why are technologically separable stages of business activities linked with each other rather to all others (market)?

Answer of all those questions is that there are costs of using price system, and economic agents set up different organizational and contractual devises to minimize on transaction costs. In fact there is not one but a set of markets (local, regional, national, international), and there are costs to find best prices and partners for farm inputs and outputs. Next, there are cost to get information about available technologies, inputs quality, consumer preferences, as well as costs for promotion of new products. Third, there are costs for negotiations, bargaining and writing contract for conditions of exchange, time of delivery, specifications etc. Next, there are costs for monitoring compliance and enforcing contract terms, and binding costs for secure partners commitment, and costs for adjustment to consequences and for renegotiations, and costs for private or court dispute resolutions. Last, we should include all losses of potential benefits because effective transactions delay

or fail to occur as a result of high information costs or fail from opportunistic behavior.

Market is not an unique nor a perfect form for organization of economic transactions and sometimes is more profitable to coordinate division of labor in an organization (under "visible hand of manager"). When a hired labor moves from one farm plot to another this is not because relative prices have changed but he has been ordered to do so. In this case a farmer replaces a set of market transactions for service (products) supply with a new form for organization of previous transactions such as employment contract. As a result coordination of economic activities between two agents (contragent in former case and employee in later) is done not by market but in centralized manner (by authority). Internalizing of transactions gives to the farmer an opportunity to save repeated costs for finding contractors (or suppliers), and for negotiations of conditions of exchange, and for renegotiations during execution stage, and for third part (e.g. court) dispute resolutions etc. Benefit from this new way of transacting takes a form of governance rather than production costs savings.

But we might ask: Why is not then all agricultural production carried on by one big company? Why are there individual farms and other organizations with different size? Why is family farm the main organization in agriculture and its size is much smaller than industrial companies? Why did historical attempt to develop agrarian economy without market failed in Eastern Europe?

Answer is that advantages of internal organization do not come without cost namely transaction costs for coordination through hierarchy. There are cost for determine potential of available resources and technologies, and for developing the efficient plan. Second, there are costs for monitoring implementation of the plan and for preventing labor shrinking. Next, there are program adjustment costs along with current changes in conditions for implementation of the plan. Forth, there are costs for motivation economic agents to provide information for improvement of plan efficiency. Next, there are costs for aligning conflicts between different divisions and levels of hierarchy. Last, we are to include any losses of efficiency as a result of communication and incentive disabilities which prevent achievement of potential for development.

Thus while natural boundaries of internal organization are determined by technological imperatives (like nonseparability, economy of scale and scope), the effective size of integral mode depends on its potential to economize both on production and transaction costs. As we look at historical development in the Eastern European agriculture we see that organizational size went far beyond the point of positive trade off between technological economies of scale and scope (production costs), and bureaucratic costs for coordination and motivation (transaction costs).

Market and hierarchy are not opposite but two extreme in the continuum of alternative governance modes for transacting which range from spot market, through various contractual arrangements, to unified integration (Williamson 1985 p.42). Whether a transaction would be executed across market or whiting an organization depends on differential transaction costs: a transaction will be carried out from an organization if the costs are less than to carry the same transaction by market or in other organizations. So we can explain all economic structures in agriculture and distribution of economic activities between different organizational forms on the base of comparative efficiency of those transactional modes. Farmer can organize a transaction, say cultivation of land by tractor, in quite different ways: he can buy a tractor (unified ownership), he may rent a tractor (rent contract), he can lease a tractor (interlinked contracts), he could buy cultivation service from market (contract service), a few farmers may buy a tractor (joint ownership) but they use it individually, farmer can joint the cooperative which provides cultivation service (non for profit organization), he may rent his land to a tractor owner and share the output (share tenancy contract), farmer can hire a tractorist to cultivate his farm (employment contract) and he may sell cultivation service to market (profit making organization).

Transaction Cost Economics overcomes zero transaction costs assumption of the Neoclassical economy. It puts the "costs of running the economic system" along production

costs when defining effective boundaries of different governance modes for organization of economic activities. "Market failure is not absolute. It is better to consider a broader category, that of transaction costs which in general impede and in particular cases block the formation of markets" (Arrow 1969, p.46). As specialization and diversification of economic activity increase then exchange between economic agents become complex and costs for coordination of activities of specialized agents take increasing part of all expenditures (up to 45% of the Gross National Product according to some estimates (North 1994, p.360)). In order to achieve gain from specialization and to save costs for their exchanges economic agents make different private arrangements (contract farming, strategic alliances, franchises) and organizations (cooperatives, hierarchies, hybrids). In modern economies complex institutions have been invented to minimize on transaction costs such as contract enforcement system, quality standards, labeling, brand names etc.

Idea of "market failure" has not been new one in economic theories. Marks made comprehensive analysis of market imperfections and capitalistic forms of organization. However, he saw the solution as organization of all transactions in a single form - national hierarchy. He also missed transactional diseconomy from coordination and motivation of activities through bureaucracy. Traditional Institutional Economics describes cases of market failure in order to justify the Government interventions. However, it misses all variety of effective private governance organizations which can substitute market as well as possibility for "government failure".

When a big dairy farmer hires a veterinarian instead of relying on market for veterinarian services, or when farmers set up an input supply or marketing cooperative instead of using free market for product procurement, or when a farmer enters in a long term contract with processing company or retailer, and when an agrofirma opens up a technology division instead of buying extension service from market, it means that economic agents replace price system with different forms of non market organizations of agrarian transactions (such as employment contract, joint venture, strategic alliance or vertical integration). Thus structure of activities in agrarian area is defined not only by prices in the free market but also by negotiations between partners and by bilateral or multilateral arrangements, by third party involvement, or by authority in a hierarchy. When all types of economic organizations in private sector do not work satisfactorily there is necessary but not sufficient condition for Government intervention - for each intervention benefits must be judged in relation to the costs. This covers the general case of public intervention in agrarian sphere as well as selection of the specific modes for its organization (direct financing or in house production of public goods, various regulations or third party involvements in agricultural transactions) in comparative transaction costs minimizing way.

Under certain circumstances prices provide economic agents with powerful incentives and all relevant information about economy (demand and supply, technological possibilities etc) to make efficient use of available resources maximizing their utilities and profits (Milgrom and Roberts 1992, p.58). Free market is a perfect mode for organization of agrarian transactions when neither sellers nor buyers can affect prices (agents are price takers and lack bargaining power), when barriers to exit or entry are low (no monopoly exists), when information is fully available in the same degree for all partners (lack of information asymmetry and possibility for opportunism), when products are homogeneous or standardized (minimum costs for finding partners, negotiating and contract enforcement), when no externality exists (parties bear all costs and benefits associated with their choices). In such a market costs of transacting are very low, initial assignment of property rights does not matter and economic agents trade property rights on resources up to the pattern of their effective use (Coase theorem). Therefore any society needs market as the most effective or alternative form for organization of some part of economic transactions. Since a great part of agricultural inputs are highly standardized for a big number of users, and technological changes in farming are slow, and most of farm products have mass "commodity" character, market is the most effective way to organize a large share of agrarian transactions (agrarian factors and output markets work well).

However, totally decentralized market system of decision making can not organize all transactions in agriculture. First, product and technology differentiation makes it expensive for individual farmers to check all relevant market information about inputs quality, conditions for use, best input and output prices etc, and they set up input supply or marketing coops to save information and operational costs of transacting.

Second, farmers may experience small numbers bargaining conditions (or monopoly) in upstream and downstream industries, so they may organize bargaining cooperative to save on negotiation and bargaining costs of transacting. Third, farmers may face missing markets for some product or services (e.g.bank service in rural area, machinery and computer service for farming etc), and they have to develop them as internal or joint non for profit operations. Next, farmers face risk from price fluctuation and they may set up a coop to pool the risk or they could share the risk with processing industry on the base of long term contracts, vertical integration etc. Fifth, when a transaction is associated with externality (e.g.small appropriability of intellectual agrarian products) no market can organize such a transaction effectively, and farmers have to develop organization for public goods demand and for third party (Government) involvement in agrarian transactions.

Sixth, because of information asymmetry a farmer can be exposed to opportunistic behavior before or during execution of transaction (e.g.verification of inputs quality, labor shrinking, partners refusal to buy perishable product at harvest time, lack of pay off). So he would prefer to rely on some stable form for organization of transaction like brand name or guarantee in the former case, output based contract or share tenancy in the second case, long term contract or joint investment in the third case, and advance payment in later case.

Seventh, if a farmer makes transaction specific investment he may either lose their value (if transaction does not occur) or he may face unfavorable trading condition at transaction recurrent time. There are plenty of examples in farm production specialized (prior harvesting) for particular end use or for low volume niche markets like: growing grape from certain varieties under controlled technology for sparkling and original wines; production of special hard wheat for baking industry; organic farming or brand name products etc. When farmers investments are "lock up" with particular transaction then open market exchange is usually displaced by some form of contract or ownership integration (e.g.contract farming, processing or consumers cooperatives). Such tight bilateral coordination between farmers and processors or distributors exist also for perishable products (milk, fresh vegetable and fruits, animals for slathering) where assets are in high bilateral dependency and quantity, quality and time of delivery are extremely important both for farmers and clients (Sporleder 1992, p.1229). In input supply side such high asset specificity is usually insured by long term contracts, common ownership (open membership cooperative), joint ownership (close membership cooperatives) or even unified organization. In later case we would expect that farmers own rather rent all farm specific assets and it is not likely to develop orchard or build a green house on rented land.

Thus in the market based economy economic agents need and develop non market forms for organization of their transactions, and real economy consists of many coordinating subsectors. Given competitive setting the tendency will be to adapt those organizational modes that best economize on transaction costs. It means that there is not a single form for organization of all kinds and types of agrarian transactions nor universal governance modes exist forever. Economic agents will chose and improve forms for organization of their transactions along with development of technology and changing conditions of exchange (e.g.improvement of contract enforcement system). Governance modes will emerge and evolve as long as any transaction economizing potential exists, and they eventually die when more effective forms for organization occur. In the long run the most transaction costs minimizing organization for each particular transaction will prevail (efficiency principle). Ultimately available for individuals continuum of alternative modes for agrarian transactions find its base in dominant legal system. For instance, if it is prohibited to hire labor then service farming would develop as a substitute; or if restrictions on land ownership or use of share tenancy exist then fix rent tenancy would develop as a

single (although not the most efficient) form for organization of land transactions.

Transaction costs depend on the nature of transaction and on the mode of its organization. It is not possible to measure transaction costs directly but we can define microeconomic factors responsible for their differences among variety of organizational forms. In order to determine effective horizontal and vertical boundaries of alternative governance modes for organization of agrarian transactions we are to match attributes of transactions (which differ for each transaction) with governance structures (which transaction costs minimizing capacity differ) in discriminating way.

There are two behavioral assumption about economic agents that the transaction cost economizing is based on: bounded rationality and opportunism. They have been broadly used in Agency literature to analyze (inter) organizational failure. Williamson puts them as a base for solving the problem of any economic organization: "assess alternative governance structure in term of their capacity to economize on bounded rationality while simultaneously safeguarding transactions against opportunism" (Williamson 1985, p.42).

Bounded rationality and possibility for opportunism are not important when frequency with which transactions recur is small, when there is no big uncertainty associated with transactions, and when a transaction is not supported by transaction specific investments. In this case transaction costs are negligible and price (market) mediation is the most effective mode for organization of transactions. However, when bounded rationality and opportunism coincide with frequency, uncertainty and asset specificity of the transactions then autonomous market exchange gives way to more complex forms of contracting or internal organization. Williamson identifies asset specificity, uncertainty, and frequency as "principle dimensions with respect to which transactions differ and among them the first is the most important" (Williamson 1985, p.52).

Big transaction difficulties arise when bounded rationality and possibility for opportunistic behavior are combined with high level of transaction specific investments. Potential for nonmarket based rent seeking from transaction is high during contract writing and contract execution stages (contractual asymmetry) or when recurrent transaction time is shorter than life span of the assets (fundamental process transformation). Value of transaction specific assets is different from its value under alternative use. It is not possible to change use or users of specific capital without loosing great part of its value. Degree of assets specificity measured by costs for redeployment of locked in investments can be considered as opportunity costs of the transacting costs. It expresses what a party pays (loses) for organization of alternative transactions if initial transaction does not occur, it is terminated or conditions of exchange are unfavorably renegotiated. Internal organization comes at cost but it has big investment protecting advantages over market contracting thus transaction costs minimizing potential. That is why internal governance (ownership) is always the mode to organize firm's "core" assets and special purpose technology. As assets universality increases then continuing transacting with a particular partner becomes less valuable. Those transactions are more effectively organized through bilateral contracting (medium asset specificity) or by market (general purpose assets).

Large part of agrarian inputs, assets, and outputs are not farm (transaction) specific, and farm gate market transactions are dominant. Long term informal and interlinked personal relationships are common in rural community. Recurrent transactions prevail between partners as trust and reputation have big role to play in minimizing cost of transacting. At the same time uncertainty is high in agriculture, technology is very flexible and productivity varies according to specific micro environment conditions. Output level is very sensitive to quality effort and depends on precision of critical farm operations. Thus human asset could be strong farm specific. However, managers ability to control hired labor is limited, and monitoring and enforcement costs are very high. Potential of economy of scale and scope from general technology is not big. This potential is easily achieved if internal organization does not experience high transaction costs or any institutional restrictions exist. There is no incentive to extend farm operations through horizontal integration with competitors (e.g. production cooperatives, agrocorporation) because trade

off between team work gain and internal costs of organization has a very low margin. It is only possible where horizontal coordination costs (for decision making, measurement of performance, avoiding free riding etc) are low as in homogeneous and less labor intensive productions. Hence boundaries of horizontal integration is determined by the potential to achieve scale (scope) economy through common management and use of resources (e.g.pastures, large machinery) versus organizational costs. Risk from market price fluctuation or monopoly could be shared via specially designed organization with competitors (specialized or pooling cooperatives, buffer stocks, associations of cooperatives) or with upstream and downstream partners (contracts, quasi or complete integration). In such conditions effective horizontal boundaries of agrofirm (farm) is determined by technological opportunity to achieve scale economy (single product) and scope economies (by products), farmers personal abilities to supervise hired labor, technical opportunity to use self enforcing contracts (output based compensation, share tenancy), and possibility to use low transaction costs (e.g.family) labor for core farm operations. Data show that world-wide owner-cultivation has been the most common form of land tenure comprising about 80 percent of all farms (Hayami and Otsuka 1993, p.7).

When assets specificity is relatively high to particular transaction in vertical chain (strong dependance from particular supplier or buyer) and behavioral uncertainty is high, then a farmer rarely relies on open market for transacting. Those transactions are safeguarded either through farm ownership on transaction specific assets (e.g.dairy cows and milking facilities) or through joint ownership (shareholding, cooperation in processing or storage facilities), or through tight modes for vertical coordination (stakeholding alliances, supply and delivery contracts), or even unified integration in industry (e.g.poultry and swan production, cattle feeding). Vertical integration is attained at farm level for highly specific assets (make or buy decision), or through common or joint ownership outside farm borders (cooperation economy on highly specific assets), as well as through joint ownership or tied-up contracts with upstream or downstream partners. In each cases there must be some potential surplus from bilateral exchange and it is to be shared by each partner through integration of transactions.

Vertical integration at farm level depends on managerial possibility to reach economy of scale for more than one specialized activity (diversification of farming, developing of marketing and processing operations) and it faces limits of managerial diseconomy. Otherwise farmer either builds inefficient facilities and lose on production costs competition (upward side) or makes efficient investment but has to bear risk to buy from (or sell to) competitors (downward side). Moreover when assets dependency is negligible integration into related stages incurs only additional costs without any extra benefits. Low transaction specific investment's risk is more effectively managed not through diversification of production (vertical integration) but at capital market through extending assets portfolio.

Transaction cost economizing approach to vertical integration outside farm gates gives a new look at effective boundaries of farm cooperatives. Cooperative is a form for unified (ownership) organization of transactions with high assets specificity for members. That is why market value of cooperative assets is much lower that its value for farmers (cooperative is member oriented), and members are ready to accept much lower than market rate of return on their cooperative shares. However, cooperative mode faces memberships limit to get efficient scale or scope economies and managerial diseconomy. Those shortcomings are only partly compensated by specialization and association of cooperatives. Another challenge is toward market orientation of cooperative and turning it in a profit making organization. However, this is connected with well known disadvantages that cooperation posses as a form for business organization such as: conflict with members, low efficiency of decision making, life cycle problem, investing limits. On the other hand high degree of outside (market) orientation means that cooperative assets become more transaction universal. In this case no more economic reason for internal integration since market coordination of vertical transactions is more effective than any integral mode.

So far we have examined the Current Transaction Economics of economic activity but

each society has to bear the Long term transaction costs for setting up one or another organizational form. Those are high level of preliminary entrepreneurial costs in private sector and political entrepreneurship costs for public goods supply or institutional development. They are different from current transaction costs for using alternative modes and thus long term investments which are to return from transaction economizing potential of new forms. For instance, if a transaction is with high asset specificity but it is occasional (e.g.patent) then set up costs for special bilateral structure may not be covered for each occasion. Hence, a third part involvement (e.g.assistance, arbitration etc) is needed for effective organization of such transactions and Governments role would be crucial.

There are two types set up transaction costs: for establishing "institution of governance like firms, hybrids, bureaus" and for changing "institutional environment of which property rights are part". Factors and mechanism for "induced" institutional innovation in agrarian area have been well developed in the Public Choice literature. Besides efficiency of mobilizing of factors for institutional modernization depends on tradition, cultural endowments etc and they are quite specific for each country (North's remark that it is not possible to import institutions). In any case transaction costs during periods of transformation of society and associated with development of institutional environment (introduction of market mechanisms, new property rights, rights on contracting etc) must be higher than in periods of stable institutions development. We have to consider all this when assessing the social price of the reforms in transitional Eastern European agriculture.

New institutions come out as a result of private entrepreneurialships, and negotiations, and associations. Therefore individuals must not be restricted to develop their private organizations for minimizing costs of transacting. Moreover economic agents must have political freedom to develop organizations and associations to promote public goods supply and demand for fundamental institutional changes. Effective economic development can not be sustained without democracy in economy, which means free market and freedom for choosing private modes for transacting. But we can not expect to have real economic democracy without having democracy in political area, which means freedom to express economic interests and lobbying for public good supply and institutional modernization. In this light we have to see the fundamental changes in institutional framework of Eastern Europe and to estimate their potential for increasing efficiency of agrarian transactions.

Structures for Organization of Transactions in Bulgarian Agriculture

Transitional Bulgarian agriculture is a good way for testing basic assumptions of the Transaction Cost Economics. Prereform development was characterized by experimentation of large scale, and highly integrated and centralized forms for organization of agrarian transactions. Managerial diseconomy was so obvious that structure had been reorganized even under the former system of management (e.g.accord, arenda, brigade organization). Unrealized technological potential as a result of big incentive and transaction difficulties reached large scale, and much has been expected from institutional transformation. Postreform restoration of private ownership on agrarian assets has been executed through specific form of liquidation of existing organizations. Following development of market organizations and institutional adjustments have been connected with overall changes of intensity of agrarian transactions and structure of transaction costs.

Number of economic agents involved in agrarian transactions have increased hundred times: registered new economic subjects in agriculture have reached more than 15000 and unregistered ones have been at least twenty times more. Share of private sector in farm output has doubled since 1989 and got to 70%. Big part of input supply and agriculture marketing have been through private delivery channels. Pattern of transacting costs has shifted toward increasing share of costs for searching best prices and partners, and costs for negotiating, and costs for contract writing and enforcing, and costs for marketing to final consumers. Introduction of private incentive system has been connected with increasing yield per crops and animals despite sharp reduction in consumption of material

inputs (for fertilizers as much as 26% of the prereform level).

New kind of costs associated with identification of ownership and restitution of property rights on National agrarian capital as well as for setting up new organizations of transacting have taken great part of transaction costs in society. More than 30% of population are becoming owners of land and other agrarian assets, and most of them have been engaging in agrarian input supply transactions. Development of new organizations occupies a good part of all transaction costs in agrarian area as more than 22% of employed, 1,7 millions land owners, and more than 2.5 millions shareholders in accumulated agrarian assets have been involved in the process. Our estimate is that total costs for identification and transformation of property rights to individuals have reached up to 10% of the value of liquidating assets.

New farming structure for transacting has been determined by inherited high asset dependency of liquidating organizations. Asset dependency has been important in several respects: first, structure of individual shares has depended on old structure of assets for distribution. Acquired by economic agents proportion of different factors of production could be highly unfavorable for new demand structure. Fruit trees that a land owner has got back with his plot or large share of passive assets (like improvements of administrative garden, livestock buildings, roads) may have no market value in new conditions. In many place dept has consisted a significant part of assets value and it has been usually covered by highly liquidity assets. This high specificity of agrarian assets has caused big devaluation of agrarian capital in new transacting structures.

Size of distributed shares (averaging \$250 per holder) has not been appropriate for effective individual farm operations. Eligible holders often have got their shares in different location and (or) from a number of liquidating organizations. Good example for the scope of the problem is the liquidation of Agrofirma "Trakiysko Pole" in Pazarjic. Its assets have been distributed between 34 organizations and ultimately among 30000 shareholders. Structure and size of individual shares have determined to the great extent type of transactions in which new agrarian agents could be involved to. High site and physical assets dependency have made acquired capital unsuitable for easy adjustment through market transactions. Specialized organizations have had to be build but a specific governance mode comes at high costs. New phenomenon of part time farming has developed as consequences of this high factors dependency.

Next, many agrarian agents have found their individual assets in high bilateral or multilateral dependency, and they have got to develop specific governance mode for those interlinked transactions. In horizontal interface that is when a farmer has been-to rent neighboring plots to explore technological economy of scale. Many new owners of local specific or dedicated agricultural assets have not been involved in farming because of living in remote urban areas, old age etc. They either have got to trade these assets in local market (small number bargaining conditions) or to set up special organizations for recourse use (rent, corporation etc). In vertical plan that is when individuals assets have been in high bilateral dependency and they needed a specialized governance structure to make upward (e.g.irrigation facility dependency) and downward (e.g.processing capacity dependency) transacting effective. If assets have been in high unilateral dependency (monopoly in supply or marketing side) new agents have had to develop specialized organization in order to get contractual parity (e.g.bargaining cooperative) or to build substitute organization to overcome transactional difficulties (e.g input supply or processing cooperative).

Third, big part of important assets were designed for large scale and highly specialized productions. Those assets have been indivisible into individual shares and they either had to be traded at market (only if they have been easy transferable) or they were to be used as common assets. If individuals assets have been in high unilateral dependency with those indivisible assets (e.g.specialized machinery) farmers could face serious transacting difficulties in post liquidating stage. Transformation to small number bargaining conditions (contractual hazard) or even moving the assets to other places (uses) might take place. It has been very risky for farmers to lose control on such assets. Since multilateral dependency

has existed individuals have got to govern transactions supported by such assets as joint ownership. If individuals assets have been in high bilateral dependency (e.g. storage or processing facilities) continuation of transactions is being important for both sides. Market procurement would be much more expensive since it has not been supported by specific assets. Special non market governance structure for those specialized transactions has had great adaptive advantages and it had to be build in order to prevent transacting problems.

Forth, conditions of high human capital specificity have been experienced by many farmers who used to be specialized in a particular production (wine producers, tobacco producers etc) or activities (mechanisators, combiners etc). Those farmers have found their skills in high bilateral dependency with acquired physical assets and (or) in multilateral dependency with human capital of other farmers (e.g. team work traditions). Also many farmers lack any experience to work in market conditions and to manage private farms. Big part of human capital has been untransferable to other uses because of labor low opportunity cost in high unemployment. This high asset dependency has locked human capital into inherited farming system and there have been no incentives to shift internal transaction to market. Small scale farming or production cooperation have come up to be only alternatives left for farmers to chose from.

Last, liquidation of former structures has not been a single act but a process and Liquidation Councils have been entitled with production management as well. For several years a great part of current agrarian transactions have been organized through this double functions governance mode. Big share of the national agrarian capital has been kept under Liquidation Councils control therefore locked into this particular transaction dependency. This has limited the scope of private and market transactions in agriculture. Trade of shares, and using them for equity financing of farming or as safeguard (e.g. for loan collateral) have been prevented. Practically all accumulated agrarian capital has been carried out in faceless (vacuum) institutional structure. Large part of agrarian transactions has not been governed in costs minimizing way. New organizational development in farming has been delayed. Agrarian capital has been highly devaluated and output based efficiency has fallen one third.

Liquidation of former agrarian organizations has externalised (opened) former internal transacting structure. However, high assets interdependency has given to economic agents only limited possibilities or incentives to trade them on market place. Those transactions have depended on each other rather from market. That is why building of specialized governance structures for organization of those interlinked relationships have got a big economic value. Recent boom of cooperatives and farm organizations, that have come out after liquidation of old production structures, can be explained with these high transaction assets specificity along with new farming institutions have emerged. We also can expect that transforming agriculture will be much more integrated that it would be if factors and products markets were well developed.

Another direction of development has been toward standardization of agrarian transactions and using of potential that market organization contains. Marketing of fresh vegetables and fruits for final consumption is a good example since a big part of them have been directly transacting in spot (farm) markets. As intermediate factor markets develop then agrarian assets will become less specific (less dependant from particular supplier or buyer), internal organization of transactions will face costs disadvantages and eventually open them to market. In the same way as market experience and managerial ability of farmers increase then their human capital specificity to particular farm operations will decrease and more market transactions can be expected. Thus farm size and scope of market transactions will be gradually adjusted along with learning by doing experience of farmers. In this respect there will be an important role for the Government third part involvement through extension education, price information, and institutional support for effective development of market transactions.

On the other hand product proliferation and technology differentiation will put agrarian transactions in increasing asset specificity regime. This would bring to life a broad variety of specialized organizations for transacting we can now see in the modern agrarian

economies. Kind of emerging forms, pace of their development, and extend of integration will depend on potential of technology, level of transaction asset dependency, and conditions of uncertainty and frequency.

Uncertainty has been extremely high in conditions of liberalization of transactions, reorganization of former structures, and inconsistent institutional and agrarian policy development. Changing structure of agrarian transactions and modes for their organizations has been influenced to the great extent by this transitional uncertainty. In the first place uncertainty has increased enormously searching and information costs of transacting. Farmers face great variety of alternative inputs, prices, possible contragents etc to chose from as well as fast changing business environment, institutional framework, and regulations to consider. Next, uncertainty has increased negotiating, bargaining and contract writing costs. Each party's transacting efficiency may range in a very large scale and partners have to work out conditions for their exchange in order to extract more benefits from transaction. It becomes also very expensive to elaborate all details for execution of transactions, and to write down all possible consequences and corresponding obligations for partners. Third, adjustment and renegotiating costs have risen dramatically since it is not possible at contracting stage to set up all conditions of exchange and to write a complete contract. Transaction difficulties occur when changing circumstances are extremely favorable for one partner and it is very expensive for another side to terminate the contract. Forth, motivation, supervision and contract enforcing costs have grown drastically. Business incentives for opportunistic behavior have been very high in time of structural instability (reputation does not matter) and economic hardships (survival considerations). Information asymmetry at precontract or contract execution stages increases possibility for opportunism and for extracting extra rent from transaction. Consequently costs for motivating partners to reveal asymmetrical information and to follow contract terms as well as for self protecting against opportunism have reached a significant part of transacting costs. Fifth, disputes resolution costs have increased in conditions of difficulty to proof the extent of meeting contract terms as well as inefficient contract enforcement system. Last, in the absence of risk market natural uncertainty of agricultural production also has got severe dimensions. Consequently farmers have started to use ineffective and restricting size development forms to deal with it such as spreading out plots in many locations and diversification of production.

Many economic agents have not had any experience dealing with market uncertainty and new market institutions. Most of them have got ownership on agrarian assets but they have no idea how to use or trade it (lack of knowledge about rights, contracting, contract enforcing etc). Conditions of high uncertainty and less frequency (flight by night traders), and fear from opportunism have deterred parties from effective transacting through market channels. As a result many effective transactions have failed to occur and for a long time national agrarian potential have not been used effectively (e.g. unsowed land reached 20% in 1994). Emerging agrarian organizations have not attracted many farmers because of their big number, short life, and uncertainty for opportunism and free riding. Preliminary model of agrarian reform (market plus private ownership) have not worked in high transaction costs economy. Transacting costs level has blocked free trading of resources (un to effective neoclassical equilibrium), and widespread weekend farming and production cooperating have come up as a result.

Transitional uncertainty has increased potential for entrepreneurial rent, and multiplied intensity and efficiency of market transactions. However, conjunction between uncertainty and opportunism has extended potential for extra (non market based) rent seeking. Many otherwise effective for all parties market transactions have not occurred or have been carried out at high costs. Predominance of cash and carry deals, lots of contract based transacting, widespread use of commercial hostages for credible commitments, producers direct sell to consumers etc have pictured structure of agrarian transactions. In order to expand potential of exchange and to overcome transactional risk agrarian agents have developed special privately enforced modes for transacting.

First move has been toward using of informal (personal) relationships as a reliable form for organization of transacting. Transaction costs have been negligible since partners know and trust each other. There has been no need for written contract or specification of formal contractual terms has taken no time. Contract execution and adjustment of contract terms have been easy since they have been governed by good will of parties. Such informal atmosphere characterized broad scope of transactions at village, national and even international levels. High quality check up costs, lack of enforcement system, and widespread illegal trade with brand names have made personal ties the single safeguard against cheating. Clientalisation, extended use of family or friends labor, and business between close friends have replaced spot market agrarian transactions. Partners have shared natural risk through share-worker or share-tenant contracts. When uncertainty has been high and there has been possibility for opportunism fix rent contract and output based labor compensation have come to scene. Advance payment has been commonly used in input supply and marketing transactions to avoid opportunistic behavior.

Second move has been farmers cooperation in order to share risk of market uncertainty. Informal interlinked relationships at village level and group decision making have given to cooperatives big advantages over other internal organizations. They also have enjoyed low costs of equity capital, economized on contracting costs, and had small exit costs. Relatively big size of cooperatives have allowed them to be in good bargaining and contract enforcement positions. As stable rural institutions cooperatives have been preferable counterparts for outside business partners and they have organized a good part of agrarian transactions effectively. However, passion to organize all transactions in a single mode as production cooperative hardly will have positive results. Many cooperatives have been set up too big in term of labor participation. However, they have been too small as a risk sharing device or effective form for marketing (inputs) supply transactions.

Long term cooperative tradition and openness to the public have made cooperatives attractive partners for many new land owners and shareholders. They have preferred to join the cooperatives and pool their risk instead of renting to unknown individuals and bearing all transacting costs. However, mix structure of cooperatives will put them in serious managerial disability since emerging conflict between interests of owner-members (current income like dividend, rent) and labor-members (long term income, capitalization). Therefore those organizations will not be stable and they will function either as corporation or real farmers cooperatives in future.

Need of specialized governance mode increases as transactions are carried in uncertain economic environment and supported by specific assets. To the some extent when uncertainty is high then any significant investment come up to be in a high transaction specific regime (immobility of resources). Investment cycle usually continues a long time in agriculture (from several months to several years). This lock up effect have deterred agents to invests in agrarian capital and no outside credit resources have come to agriculture. Even farmers have kept their savings in banks and internal investment potential of agriculture have not been used. For the same reason only few companies have been privatized in agroindustry. Rare transactions for using of facilities of processing companies have been organized through short term rent as a substitute for high risk hold up investments.

High risk to lose investment through open market transactions have made agrarian agents to build safeguards to ensure effective transacting by means of nonstandard contracting or ownership. Those transactions have been effectively organized through marketing contracts (as in the case of a big cotton producer from Tchirpan) or joint ownership like in many marketing and input supply cooperatives. Typical example for private organization of such transactions is a big fresh and canned vegetable exporter from Sofia who has got contracts with around 100 farmers in Sliven and Iambol area. Company provides producers with short term credit, inputs and extension, and it buys farm products at fix (in DM) prices. This form of interlinked and multilateral transactions has become popular way to contain transactions when assets dependency and uncertainty have been a problem. Both party have benefitted from bilateral organization of transactions: company

has insured supply of standardized products to meet its export commitments for large quantity, high quality and time of delivery; farmers have got effective input and credit supply and shift marketing risk to exporter. Continuation of transacting have been in high value for both sides since they overcome market uncertainty as well as develop structures for harmonization of relationships (communication economy, trust, good will etc).

Risk has been widely diversified through vertical integration in small scale family type businesses (agroturism, farm restaurants) and farmers cooperation in processing (venery, dairy etc). When new facilities have to be build and high capacity dependency existed then joint investment has been the mode to govern transactions. In the case of Agrofirma "Popov" Elhovo investment of \$ 1 mil in modern canning factory is being made by private company (30%), foreign trading partner (30%), agricultural cooperative and farmers (15%), and bank loan (25%). High level of linked investments and bilateral transactions have put all partners in high dependency. Joint ownership has come up to be the most suitable mode for organization of transactions. Marketing and farming have been integrated by the processor. Improvement of adaptability have been additionally protected by rational contracts including price formula, adjustment scheme for quantity and quality etc.

Recent development has been introduction of large industrial capital in agriculture as a way to diversify risk through diversification of activities. Biggest construction company from Sofia has been engaged in large livestock operation in Ruse region, and well known Financial house from the capital has invested in big scale green house production in Parvomay and Kresna area. In both cases profit has not been positive since taking over agricultural operations. In current high uncertainty conditions such hierarchically integrated organizations have got a big potential for capital access, risk diversification, adjustment capacity etc. However, as agrarian structures and markets mature then uncertainty will decrease and internal organization would have less transacting costs minimizing advantages. Accordingly greater reliance on market transactions or bilateral governance modes which depend on assets specificity can be expected.

In transitional conditions of high assets specificity and uncertainty frequency of transactions has contributed significantly to transaction costs. Many new agents have been involved in transactions and most of them lack any transacting experience. Efforts level for first transactions between partners has been much higher than for transactions that recur. When transactions have been recurrent and supported by specific assets then agents have got strong incentives to build specialized mode for their long time dependant transactions. Continuation of relationships between same partners has been important and efforts to develop governance institutions for standardization of transactions (e.g.incentive structure, adjustment mechanisms, conflicts resolution devices etc) have been justified. That is how long term contracts, alliances and other governance modes for frequent transactions have evolved. When asset specificity has been low but transactions have been recurrent then special institutions develop to minimize on costs of transacting like quality standards, grades etc. They have been effectively organized through emerging market modes as wholesale and terminal markets. However, high economic uncertainty has prevented future trading (forward contracting) of agricultural commodities in the country.

When chances to repeat a transaction have been rare and it required transaction specific investment then transactional difficulties have arisen since neither party had transaction specific interest to continue trade. When level of transactions has been big but frequency of transactions for same parties has been low (e.g.final products) then trade with brand names, franchisees, guarantees have been introduced to make transactions cheaper. In intermediate products market partners have not invested in large transaction specific assets and occasional transactions have failed to occur since set up costs for special governance mode might not be recovered by occasional transactions. Here a third part involvement has been needed in order to protect specific private investments and to make transaction possible. In this way intellectual property rights has been developed and patent trade had to be enforced by third part authority. Otherwise it would be no private incentive for investing in innovation activities since private appropriability (opportunity costs of patent) is very

low. When uncertainty has been very high and it has been impossibly or very expensive to enforce property rights then some hybrid form or direct third part involvement would be necessary. In Bulgarian agriculture transactions for credit supply, for technological development and extension supply, and for infrastructure building would less likely be organized by private parties if such direct public involvement do not take place. In current conditions of transitional uncertainty and high assets specificity third part Government involvement in those transactions will be critical. However, it is very important to design transaction minimizing incentive and adjustment structures of public involvements modes.

Liquidation of former agrarian structures has been a bad example for inefficient mode of third part involvement. Liquidation Councils have been designed without any implicit incentive and control system. Members compensations have been made dependant neither from pace of liquidation nor from production process. In the conditions of high asymmetry of information there has been no effective control from Regional Agency (later from Ministry) or from several thousands shareholders. Due to uncertainty it has been impossible to proof whether bad outcomes have been result of poor performance of Liquidation Councils or from unfavorable economic conditions. Those Councils enjoyed well paid and powerful jobs, with strong incentives for under the table deals, with all risk taken by shareholders, and no intention to finish liquidation. Our observations have been that by the end of first year of their appointment no less than 30% of Liquidation Councils have got shares distributed or could have had them but no organization was officially liquidated. Moreover Liquidation Councils have not been engaged in new organizational development. In many places the technology base of production (e.g. infrastructure, breeding stocks) have been terminated and individual shares eaten by liquidators. Instead of this double function institution we would have had better result putting activities of Liquidation Councils under the control of representatives of all interested parties in assets distribution: land owners, shareholders, communities, and State. In this way we would have had control carried more effectively, got information parity more easily, organized liquidation more faster and production management more profitable.

Governance matrix for organization of different input supply and marketing transactions in transitional conditions have been presented in Table 1. Most effective contracting and organizational modes differ according to type of transacting, and depend on combination of assets specificity, uncertainty and frequency of transacting. When there is no asset dependency, uncertainty is low and frequency is high then market is the best mode for organization of transactions. However, good part of transitional agrarian transactions have been characterized by high asset specificity, big uncertainty and less recurrence. Internal organizations based on ownership or tight integration have come up to be the most effective ways of transacting. In many cases private agrarian transactions have failed to occur at effective scale. Strong necessity for third path involvements in agrarian transactions have come to agenda. Agricultural credit supply and extension transactions have been practically blocked since 1989. Since there have been no effective modes for public involvement development of new farming system has been substantially deformed.

At the same time food expenditures have got more than 40% of all household costs when budget deficit has been a constant problem. In this conditions possibility to mobilize political resources for expensive agrarian program have been very limited. Therefore total adjustment costs of agrarian development would hardly be paid by taxpayers. Less expensive Government involvement through hybrid and trilateral forms instead of in house organizations will likely prevail. In this respect last amendment of the Land Law (1995) putting institutional restrictions for transfer of ownership has not been justified. Also emphasis on development of public extension education and accessible market information as well as assisting in organization of farmers associations and representing interest groups in political structures would be much more effective then current attempts for direct price support of farm production (Law for Protection of Agricultural Producers).

Table 1 Alternative Modes for Organization of Agrarian Transactions

Type of transactions	Asset specificity							
	High				Low			
	Uncertainty							
	High		Low		High		Low	
	Frequency							
	Occa- sional	Recur- rent	Occa- sional	Recur- rent	Occa- sional	Recur- rent	Occa- sional	Recur- rent
Land supply	O	O,LL	LL,O	LL	FRC,JO	SRC,JO	M,FRC	M,SRC
Labor supply	F	F,P	F	P,OBC	TBC,F	TBC,P	TBC,OBC	M
Input supply	O	JO,VI	JO	JO	JO	VI,JO	C,M	M
Service supply	O	JO	O	JO	JO	RC,JO	C,M	M
Capital supply	O	JO,VI	JO	TPI,JO	JO,TPI	C,TPI	M	M
Marketing	JO	JO,VI	JO,C	C,VI	JO,TPI	VI,TPI	M	M

M - market, O - ownership, JO - joint ownership, VI - vertical integration, TPI - third part involvement, F - family labor, P - partnership, TBC - time based contract, OBC - output based contract, C - classical contract, RC - rational contract, LL - long lease, FRC - fix rent contract, SRC - share rent contract

Conclusions

Agrarian transactions have consisted a large part of transactions in transitional Bulgarian economy. Minimisation of costs associated with them has been a big economic potential. Costs economizing approach has allowed us to examine market and farm organization as parts of continuum of governance forms within which agrarian agents transact. How a transaction has been mediated depend on relative costs of using those alterative modes. Private agents have developed different transacting organizations in order to share benefits of transacting and economize on transaction costs. Institutional structure of transitional Bulgarian agrarian economy has been determined by high level of assets specificity, big uncertainty and less frequency of transactions. Transitional structure has also been characterized with high level of privatization costs of agrarian assets and set up costs for new organizations of transacting. Those transactional dimensions have determined specific transitional forms for organization of transacting such as less market transacting, reliance on informal relationships at large scale, great extent of integrated modes, part-time farming and production cooperatives phenomenon, block of credit and extension supply transactions, strong necessity for third part involvement etc. However, lack of budget resources will put limits to the Government's direct market intervention. Agrarian policy should be toward using the potential that market and private organizations contain through improving contract enforcement system, extension education, market information, assisting private organization formation and representing interest groups in political structure.

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